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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,388	06/08/2000	Masamichi Nakashiba	2000-0722	9958

7590 07/24/2002

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EXAMINER

NGUYEN, GEORGE BINH MINH

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 07/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/589,388

Applicant(s)

NAKASHIBA ET AL.

Examiner

George Nguyen

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17,38-56,68-71 and 73-86 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12-17,38-56,68-71 and 73-86 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of Applicant's amendment filed on June 21, 2002.

Claims 18-37, 57-67, 72, and 87 were canceled in the amendment filed on April 22, 2002.

Claims 1-17, 38-56, 68-71, and 73-86 are presented for examination.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 12-13, 16-17, 38-47, 49-56, and 68-71 are rejected under 35 U.S.C. 102(a) as being anticipated by Hoshizaki et al.'530.

With reference to Figs. 10-16a-f, col. 10, line 42 to col. 14, line 20, Hoshizaki discloses the claimed invention including: a) a top ring 202 with pressurized fluid 281 being fed into a plurality of concentric chambers 310 and 312; and b) presser ring 291. Please note that in col. 13, lines 56 to col. 14, line 6, Hoshizaki discloses that each chamber has separate port and is separately pressurized or evacuated with fluid or gas to achieve the desired contour of wafer. Thus, inherently, Hoshizaki teaches that the pressure of each chamber is independently adjusted to achieve the desired contour of wafer to precisely control the removal rate. In col. 14, lines 1-6, Hoshizaki inherently teaches that more than two (2) chambers are needed as required to obtain other contour patterns.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14-15, 48, and 73-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshizaki et al.'530.

Hoshizaki has been discussed above, but does not disclose "a radial width along a radius of said top ring of an outer one of said plurality of chambers is narrower than a radius of a central one of said plurality of chambers".

With reference to Figs. 16e-f, Hoshizaki discloses that the radial width of chamber 312 is approximately equal to the radius of chamber 310, and that other contour patterns are possible using different relative pressures in the chambers or different chambers altogether (col. 14, lines 1-3). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the radial width relationship as set forth in claims 73-86, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding to claims 14-15 and 48, Official Notice is taken that air actuator is well-known in the art to control the presser ring in the desired location to control the edge polishing of wafer. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the polishing apparatus of Hoshizaki with

an air actuator to control the presser ring in the desired location to control the edge polishing of wafer.

Allowable Subject Matter

5. Claims 1-11 are allowed.

Response to Arguments

6. Applicant's arguments filed June 21, 2002 and April 22, 2002 have been fully considered but they are not persuasive. The specific limitations of "independently adjustable" and "radial width relationship between the chambers" are anticipated made obvious based on the above rejection.

Conclusion

7. This is a RCE of applicant's earlier Application No. 09/589,388. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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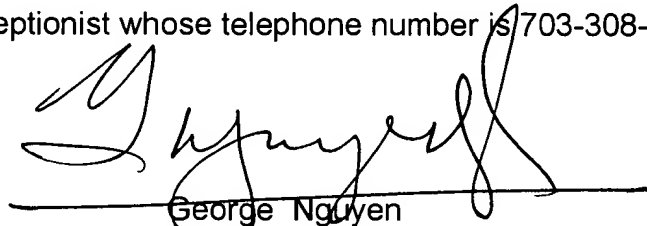
the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Nguyen whose telephone number is 703-308-0163. The examiner can normally be reached on Monday-Friday/630AM-300PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 703-308-2687. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3579 for regular communications and 703-305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1078.

George Nguyen
Primary Examiner



George Nguyen
Primary Examiner
Art Unit 3723

GN
July 24, 2002